IN THE CLAIMS:

The following listing of claims will replace all prior versions of claims presented in the application.

Claims 1-13 (canceled)

14. (Currently amended) A method of achieving a contraceptive effect comprising administering an inhibitor directed against a plasma membrane calcium ATPase 4 (PMCA4) isoform that is expressed in a sperm cell, to thereby inhibit sperm mobility such that fertilization of an egg cannot take place.

15. (Previously presented) The method according to claim 14, wherein the PMCA4 inhibitor is selected from the group consisting of a 5- or 6-carboxyeosindiacetate succinimidyl ester, an eosin, a fluorescein, caloxin 2a1 and spermin.

16. (Previously presented) The method according to claim 14, wherein administering the PMCA4 inhibitor is achieved orally, parenterally, or as a coated mechanical contraceptive.

17. (Previously presented) The method according to claim 14, wherein administering the PMCA4 inhibitor is performed as a single contraceptive event or as a repeated contraceptive event.

18. (Previously presented) The method according to claim 17, wherein the PMCA4 inhibitor is administered to a mammal.

19. (Previously presented) The method according to claim 18, wherein the mammal is a human being.

20. (Previously presented) A contraceptive composition comprising the PMCA4 inhibitor of claim 14 and a pharmaceutically acceptable carrier.

21. (Previously presented) The contraceptive composition according to claim 20, further comprising a conventional contraceptive.

22. (Currently amended) The contraceptive composition according to claim 21 ~~20~~, wherein the conventional contraceptive is a condom.

23. (Currently amended) A method for diagnosing infertility in a human male, comprising:

obtaining a biological sample from the human male, wherein the biological sample contains one or more sperm cells;

analyzing the biological sample, wherein (i) detecting a mutation or polymorphism in a PMCA4 gene encoding the PMCA4 isoform of claim 14 in the one or more sperm cells, or (ii) detecting a decrease in the expression of the PMCA4 isoform in the one or more sperm cells relative to a control sample, is diagnostic of infertility.

24. (Previously presented) The method according to claim 23, wherein the mutation or polymorphism is detected in exon 2 or exon 3 of the PMCA4 gene.

25. (Previously presented) The method according to claim 23, wherein detecting the expression of the PMCA4 isoform is performed using immunohistochemistry.

26. (Previously presented) The method according to claim 23, further comprising counting the number of non-motile sperm cells relative to motile sperm cells, wherein a number of non-motile sperm cells greater than 30% is diagnostic of infertility.